

The Wireless Soil Moisture Logger (WSML) is a soil moisture measuring system for use with up to four tensiometer probes. The WSML package includes a soil temperature probe, a 200mm & 400mm soil moisture probes. A tipping bucket rain gauge and additional probes are available as extras. The WSML integrates into Water-Insight's web based IMS and uses a long range LoRa radio to connect to an internet gateway. The device can also operate as a data logger when used in conjunction with a handheld programmer (EP3).

Key Features

- Up to 4 soil moisture probes, 1 tipping bucket rain gauge and 1 soil temperature sensor
- Operating range of approx. 5 km to internet gateway equipment
- Fully integrated with the Water-Insight web based Irrigation Management System (IMS)
- Data collection tool for local and offline operation with near real time monitoring
- Battery operation with solar power charging, supplied in the Water-Insight RSS01 remote solar station
- Installation kit includes 2.5m, 50mm galvanized water pipe standard and device mounting fixtures



| Item | Parameter | Specification |
|-----------------------|----------------------|--|
| General | | |
| | Dimensions | Approx. 110 x 70 x 25mm Mounting holes 4 x M3 |
| | Weight | 250gm |
| | Temperature | Operating: 0-65°C Storage: 0-65°C |
| | Humidity | 0-90% condensing |
| | Ingress | IP20 (Device only) IP67: When installed in RSS01 enclosure |
| | Power | Input voltage: 12V DC (13.8V max)Current: 0.2A Max. |
| | Device Management | Web: via IMS Local: via USB |
| Input/Output | | |
| | | 4 x Soil moisture probes to fit Irrrometer Watermark Soil Moisture Sensor - model 200SS 1 x Soil temperature probe 10k ohm Betatherm thermistor 10K3A5421 1x Rain gauge input 0.2 mm tip (contact switch type) |
| Radio | | |
| | Regulatory | ISM band, AS/NZS 4268 |
| | Antenna | 3 dBi fibreglass whip |
| | Operating Frequency | 915 MHz – 928 MHz |
| | Output Power | 20 dBm max. (configurable) |
| | Receiver Sensitivity | -132 dBm (@ SF 10, BW 125KWz)(LoRa) -121 dBm (GFSK) |
| | Modulation | LoRa or GFSK (configurable supply only) |
| Communications | | |
| | USB | USB 2.00, Type Mini-B connector interface |
| | Data Retrieval | Web: via IMS network gateway Local: EP3 Data Manager to SD card (SDA 2.0) GFSK datalogging option only |